

## **REMARKS/ARGUMENTS**

Reconsideration of this application is requested. Claims 1-3, 7, 8, 10-16, 22, 23, 25 and 26 are in the case.

### **I. SPECIFICATION**

The title has been objected to as allegedly not descriptive. In response, the title suggested by the Examiner has been adopted.

### **II. THE 35112, SECOND PARAGRAPH, REJECTION**

Claim 16 stands rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite in view of the limitation "the further control information". In response, claim 16 has been amended so as to be dependent on claim 14. Withdrawal of this rejection is now respectfully requested.

### **III. THE OBVIOUSNESS REJECTIONS**

Claims 1, 3, 7, 10-14, 16, 22 and 23 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent 5,956,165 to Fee in view of U.S. Patent 6,574,016 to Harley et al. Claims 2 and 15 stand rejected under 35 U.S.C. §103(a) as allegedly over Fee in view of Harley and further in view of Benedetto et al. Claim 8 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Fee in view of Harley and further in view of U.S. Patent 5,543,952 to Yonenaga et al. Those rejections are respectfully traversed.

The invention of the present application defines a method of routing control for an optical data signal to be transmitted through an optical network. The method comprises operating an optical source to generate a substantially coherent continuous-wave light beam, amplitude-modulating the light beam with a data stream to produce an optical data signal, also modulating the data signal with control information using a substantially constant amplitude modulation technique and reading the control information to determine the routing for the optical data signal.

In response to the rejections, and without conceding to the merit of the Examiner's position, the independent claims 1 and 10 have been amended to specify that the routing of the payload signal is determined by the sub-carrier signal. Independent claims 12 (directed to a method of modifying control information) and 22 (directed to a receiver) already recite this feature. The analysis of that feature in respect of claim 12 at page 4 of the Action is erroneous. There is simply no discussion of where the feature "deciding upon the routing of the stream of data depending upon the decoded information" is to be found. The analysis of claim 22 at page 6 of the Action fails to address this feature.

Both Fee and Harley are concerned with determining the connectivity of the network. In Fee, the object is to provide a history of the routing of the signal at its destination. In Harley, network equipment is allowed to verify its connectivity to the network. In neither case does the routing of the optical data signal depend upon the data carried in the sub-carrier. In Fee, the uses to which the ancillary network data are put are listed at column 7, lines 6 through 14. These include tracing network timing, performance evaluation and payload ID. Control of the signal destination and routing is

not described or suggested. In addition, Fee consistently refers to updating of the sub-carrier information after the signal has been changed (see, for example, column 9, lines 60 to 65). In this case, it is the network management facility 460 that determines whether a shift in wavelength is necessary (see the direction of the arrow on the connection between the network management facility 460 and the lambda-shift 431 in Figure 4B).

In Harley, the sub-carrier signal is referred to as the WaveID. This allows a piece of Network Equipment (NE) to determine the wavelength sources to which it is connected via the network without optically demultiplexing the payload (see, column 1, lines 58 to 67). Nowhere does Harley disclose or suggest control of the routing of the optical signals in accordance with the WaveID. In common with Fee, the routing within the network is controlled by a network manager in communication with each NE in the network (see, column 4, lines 24 to 29).

Claims 2, 8 and 15 are dependent claims and incorporate the features of the independent claims to which they depend. The independent claims are patentable for the reasons discussed above. Withdrawal of the rejections of claims 2, 8 and 15 is respectfully requested.

Based on the above, it is clear that the cited references, either taken singly or in combination, would have motivated one of ordinary skill to arrive at the invention as now claimed in the present application. Absent any such motivation, a *prima facie* case of obviousness has not been generated in this case. Reconsideration and withdrawal of the outstanding obviousness rejections are accordingly respectfully requested.

**IV. NEW CLAIMS**

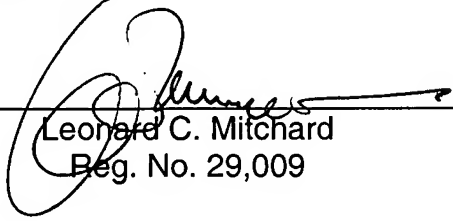
New claims 25 and 26 have been presented. Basis for these claims appears at page 3, lines 1 and 2 of the application as filed. No new matter is entered.

Favorable action on this application is awaited.

Respectfully submitted,

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